U.S. Dept. of Commerce

NO.A AMinistry of Public Works, Egypt.—Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR JANUARY 1947

NO 23 pag

The Weather

Changeable; rather cold spell in the middle of the month; mild in the fourth week. Three rainy periods.

At the beginning of the month cool southwesterly winds prevailed, with light showers in coastal regions. Conditions in Upper Egypt were disturbed on the 3rd., and light rain fell during the night, accompanied at Aswan by a thunderstorm. A depression was centred near Crete on the 4th., and during its passage the winds were fresh to strong from the southwest and the weather unsettled, especially in the north of the Delta. At Tolombat 15 millimetres of rain fell on the 6th. The temperature at Luxor fell to 2 °C. (36°F.) in the mornings of the 5th. and 6th., while at Siwa Oasis it fell to two degrees below freezing point (28°F) on four successive mornings from the 6th. Fine weather with rising temperature followed.

Egypt again came under the influence of a depression on the 11th. and a spell of stormy weather ensued. During the following three days the wind reached the force of a strong gale at Alexandria; the highest velocity recorded was 78 kilometres an hour, on the morning of the 14th. Rain was general throughout Lower Egypt, being especially heavy near the The largest amounts registered were 36 millimetres at Rosetta, 32 at Borollos, 26 at Buseili, 22 at Mariut and 20 at Damietta. The intensity of the rain decreased rapidly inland, and in Cairo district the amount was less than 2 millimetres. Conditions then improved, with light winds chiefly from the southeast, but a depression situated over the eastern Mediterranean again brought unsettled weather with heavy rain. During the three days 18 - 20th. there were 30 millimetres at Mariut, and 25 at Alexandria and Rosetta; in Cairo there were only light showers. The weather was particularly cold on the 19th., with skies overcast and strong southwesterly winds, the temperature in Cairo on that day not rising above 15 °C. (59 °F.), or 5 °C. below the normal value. At Luxor and in the oases of the western desert the nights were very cold, the temperature falling to within one or two degrees of freezing point on the 20th. and 21st.

On the 22nd, another depression passed along the Mediterranean, giving rise to strong southerly winds and mild weather, with moderate khamsin conditions and duststorms, but by the following day the wind veered to the west, bringing cooler weather and light showers The weather then became settled, and temperatures rose day by day until near the coast. the 27th., when the temperature in Cairo reached 25 °C. (77 °F.), or 6 °C. (11° F.) above The mild spell broke with the arrival of northwesterly winds during the night.

Conditions were again disturbed on the last two days of the month. Westerly winds reached gale force, causing very rough seas throughout the eastern Mediterranean; duststorms were widespread and rain fell in many places but the amounts were generally very At Rosetta, however, a thunderstorm occurred, and 42 millimetres of rain fell within forty-eight hours.

For the month as a whole the barometric pressure was well below normal. The mean temperature differed little from normal, but in general Lower Egypt was milder and Upper Egypt cooler than usual. The grass minimum thermometer at Giza recorded freezing point on the 2nd. and 6 th. Rainfall was about normal in all districts as a whole, but that of the coastal strip west of Alexandria was deficient, while that of the Rosetta area was much in excess. At Alexandria there were fourteen rainy days, compared with a normal of ten; the total rainfall was the normal amount of 40 millimetres. Duration of sunshine at Giza averaged 7.4 hours a day, equalling the normal amount.

DEPARTURE FROM NORMAL FOR JANUARY 1947

	BAROMETRIC PRESSURE		Temperature							
Diampiana			MAXIMUM		MINIMUM		(Max + Min)/2		RAINVALL	
DISTRICTS	1947	Olfference from Normal	i947	Difference from Normal	1947	from Normal	1947	Difference from Normal	1947	Difference from Normal
	m.b.	m.b.	°C.	°C.	°C.	°C.	°C.	•c.	mm.	mm.
I.—Mediterranean	1016-2	-2.0	18.7	+0.3	9.4	+0.1	14.0	+0.5	36	_ 1
II.—Lower Egypt	1016.8	$-2 \cdot 0$	19.8	0.0	7.0	+0.3	1 3 · 4	+0.2	16	- 3
	1018.1	-1.1	20· 0	$+0 \cdot 6$	8.1	+0.4	14.0	+0.5	2	2
	1019· 0	-0.6	2 1·3	-0.4	6.5	-0.3	13.9		drops.	- 1
V.—Western Desert	1019.8	0 ·5	20.2	-0.9	4.3	$-0 \cdot 6$	12.2		drops.	0
VI.—Red Sea	1016 · 6	-1.5	21.7	0.0	10.4	-0.5	16.0	1	drops.	- 1

L. J. SUTTON,
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State of the River

Lake Albert at Butiaba fell one centimetre during the month. Its level on February 1st-1947, was 15 cms. below the normal but 51 cms. above the corresponding day of last year.

The Bahr el Jebel at Juba fell almost at normal rate during the whole month. Its levels were on the whole 44 cms. below the normal but 22 cms. above those of last year's.

The River Sobat at Nasser fell much slower than normal rate. The levels were on the average 3.42 ms. above the normal and 2.77 m. above those of last year's.

The White Nile at Malakal was almost steady during the whole month. The levels were on the whole much above the normal and those of last year.

The Blue Nile at Roseires fell at normal rate. The levels were on the whole 68 cms. above the normal but almost identical with those of last year. At Khartoum the river fell slowly during the whole month. The levels were on the average 37 cms. above the norma and 42 cms. above those of last year.

At Kajnarti, on the Main Nile, the river fell at almost normal rate. The levels were in general 48 cms. above the normal and 58 cms. above those of last year.

The Difference of the mean levels in January 1947 from those of January 1946, and from the normal 1906 - 1935 were:—

	MEAN DIFFERENCE OF LEVELS				
STATION	JANUARY 1947 minus JANUARY 1946	JANUARY 1947 minus Norma			
Butiaba* Juba Nasser † Malakal Roseires Khartoum Kajnarti	Metre + 0.51 + 0.22 + 2.77 + 1.35 + 0.01 + 0.42 + 0.58	Metre - 0.15 - 0.44 + 3.42 + 1.65 + 0.68 + 0.37 + 0.48			

^{*} For February 1, 1947.

Y. M. SIMAIKA,

Director, Hydrological Service.

[†] Nasser normal is for 1922-1935 only.

Ministry of Public Works, Egypt.—Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR FEBRUARY 1947

The Weather

Mild; pronounced deficiency of rainfall; an unusual absence of strong winds.

At the beginning of the month westerly and southerly winds prevailed, and light showers occurred along the coast and in the northern part of the Delta. There were mists throughout Lower Egypt on the morning of the 5th, and with southerly winds the temperature in Cairo rose to 24°C (75°F) on the following day. During the night the wind veered to the northwest and the weather became appreciably cooler for three days, during which period very light showers occurred at a few places near the coast.

A system of high pressure was then established, with north-easterly winds, and the weather became steadily warmer. On the morning of the 12th mists were again widespread throughout the Delta, and the approach of a depression along the Mediterranean resulted in southerly winds and high temperature, 28°C (82°F) being recorded in Cairo district on the 13th, or 7°C (13°F) above the normal for the time of year. The wind veered to the northwest during the evening and there were again light showers throughout Lower Egypt and as far south as the Fayoum, while the weather became cooler, but the temperature did not fall below normal.

With the approach of a depression on the 15th winds again blew from the south; the depression passed during the early morning of the 17th, the winds becoming westerly, and showers were widespread, extending from the Mediterranean coast to Beni Suef, though in most localities they were only light. At Rosetta however the rain was heavy, 14 millimetres being recorded, and hail fell.

On the 20th winds blew from the southeast and south, and the temperature reached 28°C in Cairo district, but the wind veered to northwest during the night, and the weather rapidly became cooler, while light showers occurred at a few coastal places on the 22nd. High pressure with northeasterly winds and settled weather followed.

In the last few days of the month the weather was very warm, winds blowing mainly from between northeast and southeast. Temperature reached 28°C (82°F) in Cairo district; 31°C (88°F) at Suez, being 9°C (16°F) above normal; and 34°C (93°F) at Luxor and Aswan.

For the month as a whole the barometric pressure was below normal in all districts, though only slightly so in Lower and Middle Egypt. Temperature was everywhere above normal, being almost continuously so throughout the month during the day, while after the 12th the nights were also much warmer than usual. The grass-minimum temperature at Giza fell below freezing point on seven mornings in the first part of the month, the lowest recorded being—1.7°C (29°F). With few exceptions rainfall was practically negligible in all districts. Duration of sunchine averaged 8.3 hours a day at Giza, this being very slightly above the normal amount.

DEPARTURE FROM NORMAL FOR FEBRUARY 1947

Parties and the second	BAROMETRIC PRESSURE		BAROMETRIC		TEMPERATURE					TEMPERATURE			
			Maximum		Minimum		(MAX + MIN)/2		RAINFALL				
DISTRICTS	1947	Difference from Normal	1947	Difference from Normal	1947	Difference from Normal	1947	Difference from Normal	1947	Difference from Normal			
Richard Control Contro	m.b.	m.b.	°C.	°C.	°C.	°C.	°C.	•C.	mm.	mm.			
I.—Mediterranean	1016.5	0 ·3	20.6		10.9	,	15.8	+1.2	2	22			
IILower Egypt	1016.9	-0.5		+1.7				+1.2	, –	- 13			
IIIMiddle Egypt	1017:2	-0.3			9.1	+0.7	, – -		$drop_3$.	- 4			
IV.—Upper Egypt	1016.9	-0.8							diops,	- 1			
V.—Western Desert		-1.1		: '			(,	, ,	1			
VI.—Red Sea	1015.1	-1:3	23.7	$ +1 \ 3 $	12.8	+0.2	18.2	+0.0	0	<u> - 1</u>			

State of the River

Lake Albert at Butiaba fell 5 cms. during the month. Its level on March Ist 1947, was 9 cms. below the normal but 59 cms. above the corresponding day of last year.

The Bahr el Jebel at Juba fell at normal rate during the whole month. The levels were as a whole 41 cms. below the normal but 26 above those of last year.

The River Sobat at Nasser fell sharply during the whole month. The levels were on the average much above both the normal and those of last year throughout the whole month.

The White Nile at Malakal fell at normal rate during the first ten days, then fell sharply at much faster than normal rate till the end of the month. The levels were on the average 1.56 m. above the normal and 1.79 m. above those of last year throughout the whole month.

The Blue Nile at Roseires fell almost at normal rate during the whole month. The levels were in general 60 cms. above the normal and almost identical with those of last year. At Khartoum the river fell almost at normal rate during the whole month. The levels were in general 65 cms. above the normal and 67 cms. above those of last year throughout the whole month.

The Main Nile at Kajnarti fell at slower than normal rate during the whole month. The levels were in general 83 cms. above the normal and 1.16 m. above those of last years'.

The difference of the mean levels in February 1947 from those of February 1946 and from the normal 1906-1935 were:

				1	Mean Differ	ence of Levels		
STATION				FEBRUARY 1947 minus FEBRUARY 1946	FEBRUARY 1947 minus Norma			
				_ -	Metre	Metre		
Butiaba*	•••	•••			+ 0.59	— 0.09		
Juba	•••		•••		+ 0.26	— 0.4 1		
Nasser †	•••	•••	•••		+ 1.40	+ 1.54		
Malakal		•••	•••		+ 1.79	+ 1.56		
Roseires	•••		•••		+ 0.00	+ 0.60		
Khartoum					+ 0.67	+0.65		
Kajnarti		•••			+ 1.16	+ 0.83		

* For March 1, 1947.

† Nasser normal is for 1922-1935 only.

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Director, Hydrological Service.